

Applicant: LIN et al.
Appl. No. 10/734,198

REMARKS

Applicants have now had an opportunity to carefully consider the Examiner's comments set forth in the Office Action of August 9, 2006.

Reconsideration of the Application is requested.

The Office Action

Claims 1-16 and 18-30 remain in the application.

Claims 1-7, 11, 12, 14, 15, 19-22, and 25-28 stand rejected under 35 U.S.C. §102(e) as being anticipated by Evans (US Patent Application Publication 2003/0083016).

Claims 8-10 and 16-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Evans (US Patent Application Publication 2003/0083016) in view of Nakamura (US Patent No. 6,243,563).

Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Evans (US Patent Application Publication 2003/0083016) in view of Lo (US Patent No. 6,987,958).

Claims 18, 23-24, and 29-30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Evans (US Patent Application Publication 2003/0083016) in view of Ohkuba (US Patent Application Publication 2003/0083016).

Claim 17 has been cancelled.

Claims 31-34 have been withdrawn.

Amendments to the Specification

The specification has been amended to alleviate a typographical mistake. It is respectfully submitted that the amendments to the specification do not represent any new subject matter.

Claims Distinguish over Cited Prior Art

Claim 1 calls for among other elements: a first sub-switch adapted to couple a first selected antenna to a first receiver chain creating a first signal path, a second sub-switch adapted to couple a

second selected antenna to a second receiver chain creating a second signal path, and a third sub-switch adapted to couple a selected antenna to the transmitter chain creating a third signal path. **Evans** describes how to connect reception antennas to Rx chains at the receiving station and transmission antennas to Tx chains at the transmitting station. (Para. 15 and 16.) Particularly, Evans uses a first switch SW1 to connect antennas at the transmitting station and a second switch SW2 to connect antennas at the receiving station. (Fig. 1.) Claim 1 calls for connecting antennas to either receiving or transmitting chains at the same transceiving station by using an integrated switch structure. Nowhere does Evans disclose or suggest a switch structure that connects diversity antennas to either receiver or transmitter chains. It is therefore respectfully submitted that **claim 1 and dependent claims 2-10** distinguish patentably and unobviously over Evans.

In addition to its relationship to Claim 1, **Claim 8** calls for among other elements: the first, second and third signal path each includes fewer than or equal to two of first, second or third sub-switches. **Nakamura** describes selecting a diversity antenna by cascading at least three switches. Fig. 4 depicts selecting one out of three antennas for Rx, and one out of two antennas for Tx by coupling three switches. Signals from antennas 2 and 2N pass through switches 20, 4, 3 to reach the receiving portion. (Fig. 4.) Further, Nakamura describes selecting one out of two antennas for Rx and one out of two antennas for Tx by coupling three switches. (Fig. 5). Signals from the antenna go through switches 22, 4 and 3 to reach the receiving portion. Therefore, a signal in Nakamura can go through all three cascaded switches.

In contrast, claim 8 calls for only two switches to be coupled to one another; therefore, a signal can go only through two switches. Such solution is simple and effective because no signal has to go through all three switches. Thus, the signal losses are substantially reduced. It is therefore respectfully submitted that **claim 8** distinguishes patentably and unobviously over Evans and Nakamura, taken singularly or in combination.

In addition to its relationship to Claim 1, **Claim 9** calls for among other elements: a fourth sub-switch adapted to couple a third selected antenna to a third receiver chain. Neither Evans, nor

Nakamura, taken singularly or in combination, disclose or suggest a fourth sub-switch adapted to couple a third selected antenna to a third receiver chain. It is therefore respectfully submitted that **claim 9** distinguishes patentably and unobviously over Evans and Nakamura, taken singularly or in combination.

Claim 11 calls for among other elements: a first sub-switch adapted to be coupled to (N-T) antennas which first sub-switch couples a first antenna selected from the (N-T) antennas to (R-T) receiver chains, a second sub-switch adapted to be coupled to N antennas, and a third sub-switch adapted to be coupled to the second sub-switch to couple T antennas selected from N antennas to at least T receiver chains. As described above, **Evans** describes how to connect reception antennas to Rx chains at the receiving station and transmission antennas to Tx chains at the transmitting station. (Para. 15 and 16.) Evans uses a first switch SW1 to connect antennas at the transmitting station and a second switch SW2 to connect antennas at the receiving station. (Fig. 1.)

Claim 11 calls for selecting antennas from a group including a number of antennas fewer than all antennas by a number T and connecting each selected antenna to one of the (R-T) receiver chains via a first sub-switch, and selecting T antennas from all of N antennas and connecting the selected antennas to T receiver chains via second and third coupled sub-switches. Nowhere does Evans disclose or suggest such a structure. It is therefore respectfully submitted that **claim 11 and dependent claims 12-16 and 18** distinguish patentably and unobviously over Evans.

Claim 19 calls for among other elements: switching signals from a first selected antenna to a first receiver chain with a first sub-switch; switching signals from a second selected reception antenna to a second receiver chain with a second sub-switch; and switching signals from a selected transmission antenna to a transmitter chain with a third sub-switch. The arguments above regarding claim 1 are equally applicable here. It is therefore respectfully submitted that **claim 19 and dependent claims 20-24** distinguish patentably and unobviously over Evans.

Claim 25 calls for among other elements: switching signals from a first selected reception

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antenna to a first receiver chain with a first sub-switch; switching signals from a second selected antenna to a second receiver chain with a second sub-switch; and switching signals from a selected antenna to a transmitter chain with a third sub-switch. The arguments above regarding claim 1 are equally applicable here. It is therefore respectfully submitted that **claim 25 and dependent claims 26-30** distinguish patentably and unobviously over Evans.

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CONCLUSION

For at least the reasons detailed above, it is submitted that all claims remaining in the application (**Claims 1-16 and 18-30**) are in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

No additional fee is believed to be due for this Amendment. However, the undersigned attorney of record hereby authorizes charging of any necessary fees, other than the issue fee, to the Deposit Account No. 22-0261.

If the Examiner finds a personal contact advantageous to the disposition of this case, the Examiner is invited to call Marina Zalevsky, at telephone number 202-344-4975.

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Respectfully submitted,

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